

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings and versions thereof.

Claim 1. (currently amended) High-temperature solid electrolyte fuel cell comprising an electrolyte layer between two electrode layers obtainable by a process comprising the steps:

- (i) applying electrolyte particles in a screen printing paste onto an unsintered electrolyte and sintering the thus produced structure,
- (ii) depositing a nano-porous electrode thin layer by a sol-gel-process or an MOD-process on the structure obtained according to step (i) and the thermal treatment of the thus coated structure,
wherein a paste comprising scandium doped zirconium dioxide or doped cerium oxide (yttrium, gadolinium or samarium doped) is used as screen printing paste.

Claim 2. (currently amended) High-temperature solid electrolyte fuel cell according to claim 1 wherein an electrolyte of ~~yttrium~~ or scandium doped ZrO₂ is used in step (i).

Claim 3. (cancelled).

Claim 4. (currently amended) High-temperature solid electrolyte fuel cell according to claim 3_1 wherein the screen printing paste has a solid content of 10 to 30 wt.-%.

Claim 5. (currently amended) High-temperature solid electrolyte fuel cell according to claim 3_1 wherein the granule size distribution of the powder fraction of the paste is in the range of 5 to 20 µm.

Claim 6. (currently amended) High-temperature solid electrolyte fuel cell according to claim 1 ~~wherein~~ which further comprises an electrolyte boundary layer on the structured screen printed electrolyte layer obtained according to step (i), which is applied by an MOD process.

Claim 7. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein a layer comprising strontium doped lanthanum cobaltate (LSC) $\text{La}_{0.50}\text{Sr}_{0.50}\text{CoO}_3$ is deposited in step (ii).

Claim 8. (previously presented) High-temperature solid electrolyte fuel cell according to claim 1 wherein a layer comprising substochiometric strontium doped lanthanum manganate (ULSM) $\text{La}_{0.75}\text{Sr}_{0.20}\text{MnO}_3$ is deposited in step (ii).

Claim 9. (currently amended) High-temperature solid electrolyte fuel cell according to claim 7 wherein ~~the solid content of the LSM coating solution and the solid content of the ULSM LSC~~ coating solution is 12-14 mass %, respectively.

Claim 10. (currently amended) A process to provide a fuel cell comprising:

- (i) applying electrolyte particles in a screen printing paste onto an unsintered electrolyte and sintering the thus produced structure,
- (ii) depositing a nano-porous electrode thin layer by a sol-gel-process or an MOD-process on the structure obtained according to step (i) and the thermal treatment of the thus coated structure,
wherein a paste comprising scandium doped zirconium dioxide or doped cerium oxide (yttrium, gadolinium or samarium doped) is used as screen printing paste.

Claim 11. (new): High-temperature solid electrolyte fuel cell according to claim 8 wherein the solid content of the ULSM coating solutions is 12-14 mass %.

AMENDMENT TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figures 1-4.

Replacement Sheets 1/4 - 4/4, which includes Figures 1-4, replaces the original Sheets 1/4 - 4/4.

Appendix 1: 4 Replacement sheets
 4 Annotated sheets